

What Is Claimed Is:

1. An apparatus for trimming scrap from a blank comprising:

a steady blade;

a clamping pad securing the blank to said
5 steady blade;

a moving blade movable past said steady blade for trimming the blank;

a radius formed on the leading edge of said moving blade adapted to reduce defects in the blank
10 associated with the trimming process; and

a support element in communication with the scrap and adapted to reduce defects in the blank associated with the trimming process.

2. An apparatus as described in claim 1
15 wherein said support element reduces bending in the scrap.

3. An apparatus as described in claim 1, wherein said support element maintains the scrap substantially parallel to its original orientation.

20 4. An apparatus as described in claim 1, wherein said support element comprises:

a plate; and

an elastic pad.

5. An apparatus as described in claim 1,
25 wherein said support element comprises:

a plate; and

a hydraulic cylinder.

6. An apparatus as described in claim 1, wherein said support element comprises:

30 a plate; and

a spring element.

7. An apparatus as described in claim 1 for use with aluminum alloy blanks.

8. An apparatus as described in claim 1 for use in an automated stamping apparatus.

9. An apparatus for trimming scrap from a metal blank comprising:

a steady blade;

a clamping pad for securing the blank to said steady blade; and

a moving blade movable past said steady blade for trimming the blank; and

a radius formed on the leading edge of said moving blade adapted to reduce defects in the blank associated with the trimming process.

10. An apparatus as described in claim 9 for use with aluminum alloy blanks.

11. An apparatus as described in claim 9 for use in an automated stamping process.

12. A method of reducing the production of defects during trimming operations comprising:

holding a blank between a steady blade and a clamping pad;

moving a moving blade past said steady blade to trim scrap off of said blank; and

supporting said scrap to reduce defects in said blank associated with the trimming process.

13. A method as described in claim 12 wherein said supporting said scrap comprises:

preventing bending in said scrap during the trimming process.

14. A method as described in claim 13 wherein said supporting said scrap comprises:

keeping said scrap substantially parallel to said scrap's original orientation during the trimming process.

15 15. A method as described in claim 12 further comprising:

reducing the strain concentration caused by said moving blade on said blank through the use of a radius formed on the leading edge of said moving blade.

10 (16.) A method of reducing the production of defects during trimming operations comprising:

holding a blank between a steady blade and a clamping pad;

moving a moving blade past said steady blade to trim scrap off of said blank; and

15 15. reducing the strain concentration caused by said moving blade on said blank through the use of a radius formed on the leading edge of said moving blade.